



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/689,781

10/22/2003

Mitsuru Owada

00862.023275.

4538

5514

7590

04/03/2008

FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

CHU, RANDOLPH I

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

04/03/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/689,781	<b>Applicant(s)</b> OWADA, MITSURU	
	<b>Examiner</b> RANDOLPH CHU	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,8,10-19 and 21-85 is/are pending in the application.
- 4a) Of the above claim(s) 24-85 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8,10-19 and 21-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 24-85 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/14/2008</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

### **DETAILED ACTION**

In response to the remarks received 12/21/2007, the examiner is withdrawing the rejection and will conduct a new search. Also based on the remarks starting on the last paragraph of page 20, the examiner recognized multiple inventions

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-6, 7-8, 10-19 and 21-22, drawn to image processing that change the scale or size of the image, classified in class 382, subclass 298.
  - II. Claim 24-52, drawn to image compression with hierarchy, classified in class 382, subclass 240.
  - III. Claims 53-85, drawn to bandwidth reduction with wavelet, classified in class 375, subclass 240.19.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination I has separate utility such as image processing that change the scale or size of the image and subcombination II has separate utility such as image compression with hierarchy and subcombination III has separate utility such as bandwidth reduction with wavelet. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

3. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required

Art Unit: 2624

because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Frank Cire on 3/10/2008 a provisional election was made to prosecute the invention of I, claims 1-6, 7-8, 10-19 and 21-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 24-85 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 12 and 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 12 and 23 are all directed

to a distributed software agent. "program code" refers to software, which is functional descriptive material, which per se is nonstatutory. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases. In this instant application, A storage medium could be a paper which is not statutory. Also specification of instant application include computer network such as LAN and WAN as storage medium which is not statutory.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1-5, 8, 10-17, 19, 21-23 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: In case that the minimum number of layer/layers of hierarchy corresponds to all the layers of hierarchy then there are no one or more layers.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 7, 8, 10-19 and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Christopholos et al. (The JPEG 2000 still image coding system: an Overview, IEEE Transaction on Consumer Electronics, Vol. 46 No. 4, pp 1103-1127, Nov. 2000).

With respect to claim 1, Christopholos et al. teaches,

determining a size of an image to be outputted (IV.2.3 Bit stream Parsing, given resolution(level));

decoding the encoded image data up to a layer of hierarchy which is one or more layers higher than a minimum number of layer/layers of hierarchy needed by an image to be equal to the determined size when image data is decoded to the minimum number of layer/layers of hierarchy (IV.2.3 Bit stream Parsing, IV.2.1 SNR scalability); and

reducing the size of the decoded image to the determined size (does not require to reduce image when minimum number of layer/layers of hierarchy needed by an image to be equal to the determined size).

With respect to claim 2, Christopholos et al. teaches, determining the minimum number of layer/layers of hierarchy needed by the image to be equal to or exceed the determined size when image data is decoded to the minimum number of layer/layers of

hierarchy; and decoding the encoded image data up to a layer of hierarchy which is one or more layers higher than the determined minimum number of layer/layers of hierarchy (IV.2.3 Bit stream Parsing, IV.2.1 SNR scalability).

With respect to claim 3, Christopholos et al. teaches, determining a layer/layers of hierarchy each of which, when the encoded image data is decoded up to each layer, makes a size of a decoded image exceed the determined size; and decoding the encoded image data up to a layer of hierarchy which is one layer more than the lowest of the determined layer/layers (IV.2.3 Bit stream Parsing, IV.2.1 SNR scalability).

With respect to claim 4, Christopholos et al. teaches, decoding a lowest layer of hierarchy of encoded image data among layer/layers which has/have not been decoded, comparing a size of an image obtained by decoding the encoded image data and the determined size, and repeating the decoding of a lowest layer of hierarchy of the encoded image data among the layer/layers which has/have not been decoded when the size of the decoded image is smaller than the determined size; and decoding a next lowest layer of hierarchy of the encoded image data (IV.2.3 Bit stream Parsing, IV.2.1 SNR scalability).

With respect to claim 5 Christopholos et al. teaches, acquiring a layer of hierarchy which is one layer more than a minimum number of layer/layers of hierarchy



Art Unit: 2624

needed by an image to be equal to or exceed the determined size when image data is decoded to the minimum number of layer/layers of hierarchy using a look up table (table II, III) on the basis of a size of an image to be obtained by decoding all of the encoded image data and the determined image size; and encoding the encoded image data up to the acquired layer of hierarchy (IV.2.3 Bit stream Parsing, IV.2.1 SNR scalability).

With respect to claim 7, Christopholos et al. teaches, determining whether the minimum number of layer/layers of hierarchy corresponds to all the layers of hierarchy of the encoded image data, wherein if the determination proves true, all the layers of hierarchy of the encoded image data are decoded (II. Applications-requirements-Features, Lossless compression).

With respect to claim 8, Christopholos et al. teaches the determined size includes horizontal pixel number information and vertical pixel number information (II. Applications-requirements-Features, Progressive transmission by pixel accuracy and resolution).

With respect to claim 10, Christopholos et al. teaches encoding method used conforms to JPEG2000 (IV.2.3 Bit stream Parsing)

With respect to claim 11, please refer to rejection for claim 1.

With respect to claim 12, please refer to rejection for claim 1.

With respect to claim 13, Christopholos et al. teaches, determining a size of an image to be outputted (IV.2.3 Bit stream Parsing, given resolution(level)); and encoding the image up to a layer of hierarchy which is one or more layers higher than a minimum number of layer/layers of hierarchy needed by an image to be equal to or exceed the determined size (IV.2.3 Bit stream Parsing, IV.2.1 SNR scalability).

With respect to claim 14, Christopholos et al. teaches, determining the minimum number of layer/layers of hierarchy needed by an image to be equal to or exceed the determined size; and encoding the image up to a layer of hierarchy which is one layer more than the determined minimum number of layer/layers of hierarchy (IV.2.3 Bit stream Parsing, IV.2.1 SNR scalability).

With respect to claim 15, Christopholos et al. teaches, determining a layer/layers of hierarchy each of which, when the image is encoded up to each layer, makes a size of an encoded image exceed the determined size; and encoding the image up to a layer of hierarchy which is one layer more than the lowest of the determined layer/layers (IV.2.3 Bit stream Parsing, IV.2.1 SNR scalability).

With respect to claim 16, Christopholos et al. teaches, encoding a lowest layer of hierarchy of an image among layer/layers which has/have not been encoded,

Art Unit: 2624

comparing a size of an encoded image and the determined size, and repeating encoding of a lowest layer of hierarchy of the image among the layer/layers which has/have not decoded when the size of the encoded image is smaller than the determined size; and encoding a next lowest layer of hierarchy of the image (IV.2.3 Bit stream Parsing, IV.2.1 SNR scalability).

With respect to claim 17, Christopholos et al. teaches, acquiring a layer of hierarchy which is one or more layers higher than a minimum number of layer/layers of hierarchy needed by an encoded image to be equal to or exceed the determined size using a look up table (table II, III) on the basis of a size of the image and the determined image size; and encoding the image up to the acquired layer of hierarchy (IV.2.3 Bit stream Parsing, IV.2.1 SNR scalability).

With respect to claim 18, Christopholos et al. teaches, determining whether the minimum number of layer/layers of hierarchy corresponds to all the layers of hierarchy to which the image data can be encoded, wherein if the determination proves true, the image are encoded up to the possible layer (II. Applications-requirements-Features, Lossless compression)..

With respect to claim 19, Christopholos et al. teaches the determined size includes horizontal pixel number information and vertical pixel number information (II.

Art Unit: 2624

Applications-requirements-Features, Progressive transmission by pixel accuracy and resolution).

With respect to claim 21, Christopholos et al. teaches encoding method used conforms to JPEG2000 (IV.2.3 Bit stream Parsing).

With respect to claim 22, please refer to rejection for claim 13.

With respect to claim 23, please refer to rejection for claim 13.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randolph Chu whose telephone number is 571-270-1145. The examiner can normally be reached on Monday to Thursday from 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

Art Unit: 2624

more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/RIC/

/Matthew C Bella/

Supervisory Patent Examiner, Art Unit 2624